



TERMS.

Cash with order, or C. O. D. on receipt of 25 percent. of the amount of the purchase to guarantee transportation charges. Remit by Bank Draft, Post Office Money Order, or Express Money Order. Do not send personal check unless certified. Goods delivered F. O. B. Orange, N. J. No charge for boxing or cartage.

Machines are sold outright, with no territorial restrictions. We do not lease machines. We do not ship machines on approval.

All Edison apparatus is warranted to be superior in workmanship, and only the best materials are used in their manufacture.

We do not deal in second-hand machines. We do not take old machines in exchange or trade.

Always state how shipment is to be made; by freight or express, giving the route in either case. Remember that it takes three or four times as long for goods to reach destination if shipped by freight, and also that the cost of an express shipment is three to five times greater than a freight shipment.

Order by catalogue number and letter K. In telegraphing, use the Code Words.

CAUTION.

Edison Kinetoscopes, Projecting Kinetoscopes and Films are covered by U. S. Patents No. 493,246, dated March 14th, 1893; No. 589,168, dated August 31st, 1897 (re-issued September 30, 1902, No. 12,037 and 12,038 and January 12, 1904, No. 12,192); No. 688,648 and No. 688,649, dated December 10, 1901, and No. 711,815, dated December 2, 1902. The public is warned against purchasing or exhibiting apparatus of any other make.

Form No. 210. 5-244.

EDISON Projecting Kinetoscopes

This Catalogue
supersedes Catalogues
Nos. 164 and 166

Manufactured by
EDISON MFG. CO.
ORANGE, N. J.

INTRODUCTION.

The first Kinetoscope was devised by Mr. Edison in 1887. It was a ponderous affair, costing several hundred dollars. Briefly described it was a box with a peep-hole at the top. With this machine, owing to mechanical limitations, only one person at a time could enjoy the moving pictures. It was Mr. Edison's idea to devise an instrument that should do for the eye what the Phonograph does for the ear, and the Projecting Kinetoscope as now perfected illustrates the successful working out of that idea.

Edison Projecting Kinetoscopes of to-day represent the very highest development in the art of photography; that of bringing before the eye an exact life-size reproduction of life motion, with all its accompanying effects of light, shade and expression. By means of a transparent picture film, an intense light, and proper arrangement of lenses, the pictures are projected upon a screen one after another, in such rapid succession that the eye cannot perceive any intermission between them, thus producing a perfect illusion of continuous action. Edison Projecting Kinetoscopes also enlarge the scenes and figures to full life size and illuminate them brilliantly. They do these things simply and perfectly. They are built to stand wear. They will outlast any machine made by unskilled people.

Edison Projecting Kinetoscopes have grown rapidly in popular favor. They amuse and they teach. They combine profitable instruction with delightful entertainment. The list of Edison Films now at the disposal of buyers covers a wide variety of topics.

EDISON PROJECTING KINETOSCOPES.

Edison Projecting Kinetoscopes are made in two styles: The Exhibition model and the Universal model. Each is a perfect motion picture machine in every respect.

The Exhibition model is much larger than the Universal. It is also more rigid, is equipped with ten inch reels that hold from 1000 to 1200 feet of film, while the Universal reels are eight inches in diameter and accommodate only 700 feet. Much better quality objective lenses are furnished with the Exhibition model, and the mechanism is enclosed in an oak cabinet, while the Universal mechanism is not, it being attached to a support existing. The work done by each machine combines accuracy with brilliant results. Each machine is equipped with a stereopticon attachment for showing standard size lantern slides, the lamp illuminating the motion pictures serving also for the slides.

The essential advantages of these machines are: Extreme completeness, compactness, portability, simplicity, accuracy, ability to project steady and brilliant pictures, and reduction of injury to films. They can be operated without any previous knowledge of the art. Both use the standard Edison films which have been adopted as standard the world over.

Their mechanism, and, in fact, their entire construction is so simple that any one, after reading the printed instructions, may set up and operate them.

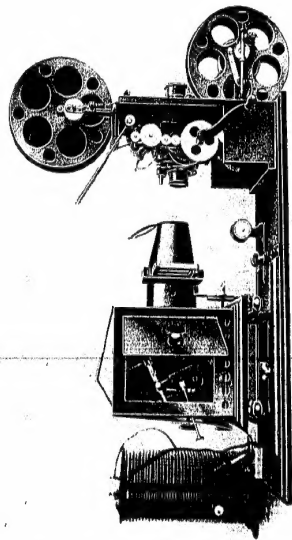


FIG. 10 Edison Exhibition Projecting Kinetoscope.

EDISON PROJECTING KINETOSCOPE. EXHIBITION MODEL.

Price, \$115.00.

Catalogue No. K 15000. Code word *Unfutile*.

Net weight complete, 71½ lbs.; without Rheostat 55½ lbs. gross weight, 100 lbs.: Dimensions when set up ready for operation: Length, 3 feet 9 inches; width, 11 inches; height, 16 inches. Dimensions of packing case: 24½ x 12½ x 22 inches.

Equipment.

Hand power mechanism on Quartered Oak Cabinet.	Russian Iron Cone and Slide Carrier Frame.
Reel Hanger with Rewinding Crank, Gear and Reel Shaft with Pinion.	Double Slide Carrier.
Take-up Device.	Extra Quality Condensing Lens.
Two 10-inch rods.	No. 2 Objective Lens for motion pictures.
Large Base Board, with Clamp Casting complete.	Stereopticon Attachment including No. 2A Objective Lens.
Lamp House complete, with Lamp House Brackets.	Kilfo Switch for Electric Current and connection from Lamp to Rheostat.
Are Lamp and Base.	Adjustable Rheostat for 72 or 104 volts alternating current, or 110-120 volts direct current.
Eccentric Holder Post for Calcium Burners.	

Exhibition Model without Take-up Device.

Price \$105.00

Catalogue No. K 15001. Code word *Unimproved*.

Exhibition Model without Stereopticon Attachment.

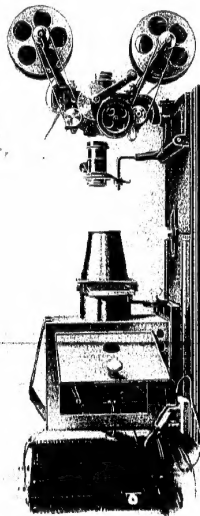
Price \$105.00

Catalogue No. K 15002. Code word *Unimproved*.

Exhibition Model without Take-up Device and Stereopticon Attachment.

Price \$90.00

Catalogue No. K 15003. Code word *Unimproved*.



Edison Projecting Kinetoscope.

EDISON PROJECTING KINETOSCOPE. UNIVERSAL MODEL.

Price \$75.00.

Catalogue No. K 14500. Code word *Umbra*.

Net weight, 45 lbs.; without Rheostat, 29 lbs. gross weight, 90 lbs. Dimensions when set up ready for operation: Length 29 inches; width 11 inches; height 14 inches. Dimensions of packing case: 35 x 15 x 22 inches. Sold only in two ways.

Equipment.

Hand power mechanism with Base Casting and Sliding Device.
Take-up Device and Reel Hanger.
Two 3-inch Reels.
Two Spring Steel Belts for Driving Reels.
Large Base Board with Clamp. Casting coin plate.
Lamp House complete.
Arc Lamp and Base.
Excite Holder Post for Calcium Barriers.
Kessle Type Carrier and Slide Carrier Frame.
Double Slide Carrier.

Extra Quality Condensing Lens.
No. 1 Objective Lens.
Stereoscopic Attachment, including casting for holding half size objectives, adapter for holding quarter size objective and No. 1 A Objective Lens.
Knife Switch for Electric Current and connections from Lamp to Rheostat.
Adjustable Rheostat for 62 or 100 volt alternating current, or 110 or 120 volts direct current.

Universal Model Motion Picture Mechanism. Price \$50.00.

Catalogue No. K 11600. Code word *Usable*.

Equipment.

Hand power mechanism with Base casting and sliding device.
Take-up Device and Reel Hanger.
2 3-inch Reels.
2 Spring Steel Belts for Driving Reels.

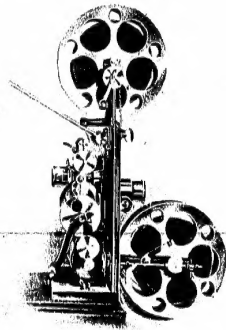
No. 1 Objective Lens.
Stereoscopic Attachment, including casting for holding half size objectives, and adapter for quarter size objectives but without the condensing lens.

THE MECHANISM.

Edison Projecting Kinetoscopes are equipped with improved reels and a perfect take-up device for reeling film. They are also equipped with a triple sprocket gearing. The top sprocket is used to feed the film from the upper reel, after forming a loop, into the framing device. The middle sprocket is intermittent, bringing the film to the

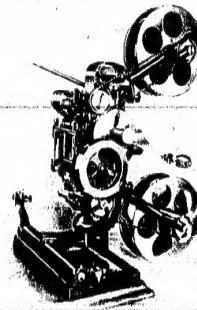
pull and friction on the film is obviated, thus prolonging its life. In other words, about five or six inches of film only is being brought down by the middle, or intermittent sprocket, the top sprocket, which runs continuously, doing all the work of feeding the film into the framing device.

The top reel is set in a bracket (or reel hanger) which is clamped to the top of the mechanism on the Universal model and top of cabinet on Exhibition model. It is equipped with a winding crank for the rapid rewinding of the film from the take-up reel on the Exhibition Model. On the Universal Model, the upper rewinding attachment is arranged so that the film can be run backward or forward as desired. It is equipped with a pulley and spring belt similar



Cut Pk 10. Showing Mechanism of Edison Exhibition Kinetoscope.

point of exposure, and stopping it for the time of a scene and required for exposure. The lower sprocket is only to keep the lower loop and feed the film into the take-up device. By running a pump before it reaches the middle sprocket, the



Cut Pk 11. Showing Mechanism of Edison Universal Kinetoscope.

to the take-up attachment. If customers prefer the reel hanger fitted with rewinding crank and gear, we furnish it, but unless specified, Universal machines are supplied with the attachment for running the film backwards through the machine.

The framing device is operated by a simple lever attachment, which enables an operator to instantly adjust the film in the correct position before the framing plate in rear of the projecting lens.

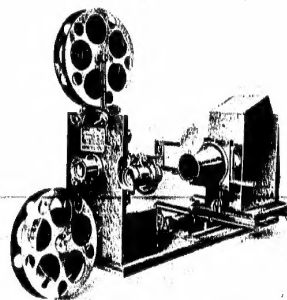
The Take-up Device automatically winds up the film after it has been exhibited. That on the Exhibition model consists of a reel suitably geared to the machine, with an adjustable friction device that causes the film to be wound tightly on the reel, without any pull on the sprockets. The Take-up Device on the Universal model is operated by a spiral spring belt. These Take-up Devices are a great improvement over the old method of running the film into a bag or box. They avoid kinks, snarls and a possibility of fire. This is a great convenience to an operator, as it keeps the film always free from dust, dirt and unnecessary friction, all of which will cause scratches. After the film has been wound on take-up reel, it can be re-wound on the top reel in a very short time. The Take-up Devices are easily detachable for convenience in packing.

STEREOPTICON ATTACHMENT.

The Stereopticon Attachment consists of a stereopticon objective lens, and an adjustable rod device by means of which the attachment is fastened to the Kinetoscope. The same condensing lens serves for both the Stereopticon Attachment and Kinetoscope. The objective lens is of extra quality and especially selected so that it gives a field on the screen about the same size as the field given by the Projection Kinetoscope lens. The

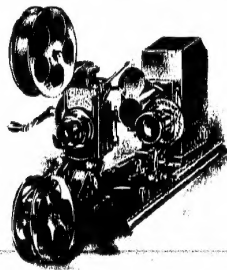
lens is mounted in a ring casting which slides forward and back on the adjustable rod device. The forward and back movement of the lens on the sliding rod, together with the focusing screw of the lens, permits ample focal adjustment. The entire Stereopticon attachment is very easily detached for convenience in packing. The Stereopticon side of the machine can be used independently of the animated picture side for showing lantern slides.

The combination of both Kinetoscope and Stereopticon in one machine is an important feature.



Cut Pl. 17. Showing Stereopticon Attachment of Edison Exhibition Kinetoscope.
This, especially at both ends, can be operated by one person. It will often be found convenient to have slides containing the announcements, with a brief description of next film to be shown, and to show such announcement upon the screen before each film is run.

The new double slide carrier enables the exhibitor to operate both slides and moving pictures from one side of machine. A slide is put in place while moving pictures are shown. When the film is ended the lamp house is immediately centered on the stereopticon lens by moving the mechanism of the Universal Projecting Kinetoscope toward the operator, or the lamp house of the



Cut UK 9. Showing position of Stereopticon Attachment on Edison Universal Kinetoscope.

Exhibition Projecting Kinetoscope away from the operator, and the slide picture is instantly flashed upon the screen. While one slide is shown, another can be placed in the empty end of the carrier, for an instantaneous change of pictures. It is made to carry the regular size of lantern slides, 3 1/4 x 1 1/4 inches, which can be purchased from any comic lantern supply house in the country. Hand power is used in operating the machine.

The film moving mechanism is simple, and requires only a steady wrist movement to run it.

THE FILM.

The picture film is a long strip of celluloid, one and three-eighths of an inch in width and of various lengths, according to the subject. Each photograph is three-quarters of an inch long by one inch wide. The edges of the film are perforated, to pass over the sprocket device carrying the film in front of an intense light and the objective lens which projects the picture upon the screen; thus both magnifying and illuminating the photograph. This film is operated only on the Projecting Kinetoscope and cannot be used in the Stereopticon attachment.

OBJECTIVE LENSES.

The Objective Lenses, with which the Edison Exhibition Projecting Kinetoscope is equipped, are wide angle lenses which give a field 11 1/4 x 15 feet at a distance of 70 feet from the screen, or a 3 foot picture for every 14 feet of distance. Those furnished with the Universal Projecting Kinetoscope are special wide angle lenses, giving a field of 11 1/4 x 15 feet at a distance of 70 feet from the screen, or a 3 foot picture for every 10 feet of distance. We also furnish objective lenses that will project pictures 3 feet wide at 20 feet larger in proportion. These are sold as extras. (See price list on page 27.)

The Universal Adjustable Objective is a new lens for moving picture work. It is a lens which will project a large or small moving picture, and of any size between the two extremes, without changing the location of the machine or making any change in the focus of the objective.

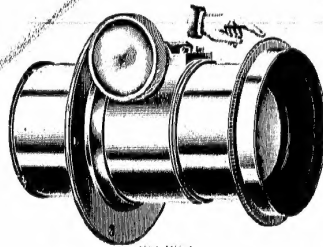


FIG. 1.
Shows the Universal Adjustable Objective Lens.

This lens resembles in appearance the ordinary objective and projects a maximum picture whose width is equal to about one third of the distance from the curtain to the instrument, and a minimum picture whose width is equal to about one-fourth of the distance. These sizes and all sizes between can be projected from one position. This is accomplished by a peculiar combination of lenses in the objective. A focus is obtained in the ordinary way, by means of the milled screw head. The size of the picture is varied by turning the head of the objective, indicated by the hand. The picture always remains in focus after the adjustment. The Universal Adjustable Objective will project different size pictures at different distances.

DISTANCE	SIZE OF PICTURE
50 feet	Between 1 and 2 feet
10	2 1/2 to 4
10	10 to 14
10	15 to 17
10	18 to 20
10	20 to 25

Illustrating the use of this lens: Assuming that a motion picture machine has been placed at a distance of 50 feet from the curtain, which is 15 feet square. On making his first trial the operator focuses his objective and finds that his picture is too large for the curtain. He then reduces it to the exact size of his curtain merely by revolving the front ring of the objective, which controls the inner combination of lenses. Changes in size of picture can be accomplished while the machine is in operation.

THE No. 1 MOVING PICTURE OBJECTIVE.

The objectives that usually accompany projecting machines project a life-size picture at a long distance, and too small a view at short distances. This is due to the fact that individual pictures on a motion picture film are very small and even a high power objective requires a long distance to enlarge the view to life-size. The ordinary motion picture objective projects a view

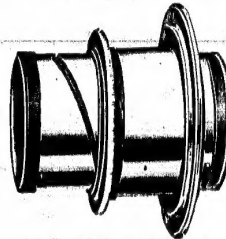


FIG. 2.
Shows No. 1 Moving Picture Objective Lens.

whose entire disc equals about one-fifth of the distance; a 10 foot disc at 50 feet, 15 at 75 feet, etc. To make an objective which would project equally large pictures at lesser distances has been a difficult task, but we believe that the problem has been satisfactorily solved with our No. 1 Motion Picture Objective.

This lens is of high magnifying power and projects an illuminated disc whose size equals about one third of the distance. The following table will demonstrate its approximate capacity:

DISTANCE FROM OBJECT	SIZE OF MOTION PICTURES
25 feet	7 feet
33 "	10 "
48 "	14 "
68 "	20 "

The higher the power of an objective, the more delicate must be the focusing. A slight variation in position of the lenses will throw the view out of focus. The usual rack and pinion not being considered delicate enough for fine adjustment of this lens, we have adopted an entirely new method, which allows of the slightest variation in position of the lenses, is rigid and completely under the control of the operator. This feature lies in a spiral groove cut into the inner tube of the lens, in which plays a steel screw; milled flange fastened to the inner tube causes it to revolve when turned by the operator, and at the same time the screw working in the spiral causes the tube containing the lenses to play backward and forward.

This lens is furnished with every Universal machine.

The condensing lens is of the finest quality and is especially selected to secure the clear definition so necessary in a perfect projecting machine.

In ordering condensing lenses (glasses) only, state whether the glass wanted is the one next to the light or the one furthest away.

The Stereopticon Objective Lens is most carefully selected to insure perfect harmony between the stereopticon and motion pictures.

OBJECTIVE LENS COMBINATIONS.

We list below a combination of motion picture and stereopticon objective lenses for obtaining nearly the same size views at different distances.

No. 1. Challenge motion picture objective, size of picture 3 feet for every 10 feet of distance.

No. 2. Middle distance moving picture objective. Projects a picture 3 feet for every 14 feet of distance.

No. 3. Long distance moving picture objective. Projects a picture 3 feet for every 20 feet of distance.

Stereopticon Objective Lenses.

No. 1A. Projects a view, size 3 feet for every 10 feet of distance.

No. 2A. Projects a view 3 feet for every 14 feet of distance.

No. 3A. Projects a view 3 feet for every 20 feet of distance.

We also supply the following extra lens.

No. 1AA. This is a regular half size objective lens standard size for stereopticon pictures, giving the same size picture as 1A, but is of better quality.

See page 300 on page 14.

Explanation of Above.

The combination No. 1 and No. 1A are the regular Projecting Kinetoscope and Stereopticon Objective lenses furnished with complete Universal Projecting Kinetoscope outfit.

The combination No. 2 and No. 2A are the regular middle distance Projecting Kinetoscope and Stereopticon objectives furnished with our Exhibition model outfits.

The combination No. 3 and No. 3A are the longest focus Projecting Kinetoscope objective and 1 an 18-inch back focus stereopticon lens in a half size mounting.

The Universal Projecting Kinetoscope is equipped with a stereopticon ring casting and flange large enough to take a half size mounting, and it also has an adapter which accommodates a quarter size mounting.

THE LAMP HOUSE.

Both models of the Edison Projecting Kinetoscope are equipped with the same style lamp house, the only difference being in the method of mounting it on the base board. This Lamp House is the most complete device of its kind ever put on the market. The Exhibition model lamp house is mounted on castings 29 inches in height, has a forward and back adjustment of 6 inches and a side adjustment of 5 inches for the stereopticon attachment. The Universal Lamp House is set on the large baseboard between two guide strips and has a forward and back adjustment of 6 inches but no side adjustment as the mechanism of this machine slides back and forth to show both moving pictures and lantern slides. The Lamp House opens from the right side and rear, thus allowing an exhibitor to get at the lamp very readily. The only window in the side door permits inspection of the light at all times, without opening the door, or injury to the operator's eyes.

The interior of the Lamp House is planned for every illuminant known to moving picture and stereopticon exhibitors, including electric arc light (both direct and alternating), oxy-hydrogen or lime light burners, and saturators. The arc light being undoubtedly preferable (especially in sections where electric current can be obtained), all lamp houses are equipped especially for the arc light. (The different gas burners mentioned above are sold as extras.) The base on which the arc light is mounted has a forward and back adjustment of 24 inches, operated by a fibre hand wheel, enabling the operator at all times to obtain instantly and keep the proper distance between the light and the condensing lens.

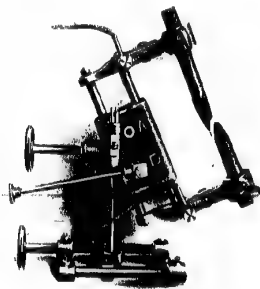
THE ARC LAMP.

The Arc Lamp is the most complete and handiest lamp of its kind. The same style lamp is furnished with both models. This lamp is designed for either alternating or direct current. It has an up and down adjustment of 19 inches, which, together with the forward and back adjustment of the base, enables the exhibitor to keep his light completely under control.

The carbon holders accommodate carbons varying from $\frac{1}{4}$ to $\frac{5}{8}$ inches in thickness. We specially recommend a $\frac{3}{8}$ inch special cored carbon for animated picture work. This extra size carbon gives a much more satisfactory light than the small carbons and it is also more economical. $\frac{3}{8}$ inch carbons will burn one hour without re-setting.

The lamp is constructed to use with both alternating and direct currents. When direct current is used, the gear shaft should be inserted in the hole (D). It will then feed the upper carbon

twice as fast as the lower when inserted in the hole (A). This is because the upper carbon is consumed twice as fast as the lower one when direct current is used. When alternating current is used the gear shaft should be inserted in the hole (A). It will then feed both carbons alike. This is because both carbons are consumed alike when alternating current is used. The lever is operated through an opening in the rear door. All the other adjustments can be made while both lamp house doors are closed.



Cut PK 13

Showing side view of Arc Lamp

An eccentric holder post (for accommodating calcium and gas-oxygen burners) is furnished with every complete machine. It is a simple, yet complete adjusting device.

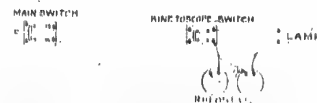
THE LIGHT.

Electric light is the best, as it is the most intense. Either the 110-120 volt direct current or the 52 or 104 volt alternating current can be used, 25 to 30 amperes giving best results.

A rheostat is furnished with every complete outfit, the use of which, together with the wiring and operation of the Edison Projecting Arc Lamp, is fully described in "Directions for Operating" which accompany every Edison Projecting Kinetoscope. The rheostat is wound with special German silver high resistance wire and has a maximum capacity of 40 amperes. The operator has only to move the sliding adjustment up or down to regulate completely the above three currents, which are the only electric circuits ordinarily encountered. We recommend the use of two rheostats wired in multiple when alternating current is used.



Cut PK 21 Showing one Rheostat connected with Lamp



Cut PK 22 Showing two Rheostats connected in multiple

Calelm (or oxy-hydrogen) light is a very intense illuminant, and in past years has found great favor with angle lantern owners as a convenient, clear and intense light for showing up pictures. The calelm light has recommended itself because the oxygen and hydrogen gases (in cylinders) are so easily obtainable.

In nearly every large city in the United States there are calelm light companies who supply hydrogen and oxygen gases in iron cylinders. These cylinders may be shipped by express. This is a very satisfactory light when the electric current is not available. The gas-oxygen light is a very powerful illuminant and one of the best substitutes for the electric light. It is safe and its operation is simple. By its use a light of 1000 candle power can be obtained without any hissing or roaring. No complex construction, easy to operate, and economical. Certain it is that this light opens up new territory to exhibitors. The outfit is easily carried as bag, gage, compact in form, light weight and can be transported with little extra trouble. The outfit for making the light consists of an oxygen generating outfit and a saturator and burner. The jet burns upon a fine pencil, producing a very brilliant light.

We recommend the gas-oxygen light particularly. Our gas generating outfits are offered at very reasonable prices. See price list page 27. By referring to the numbered cut Pk24 on page 27 the simplicity of each outfit is apparent. Outfit No. 28 is the same as outfit No. 27 with the addition of a compressor, a twenty five foot cylinder and gage attachment.

THE OXYLITH GAS-MAKING OUTFIT.

A New Outfit Which Generates Gases for Lime Light.



The Oxylith gas-making outfit was invented as a natural sequence to the production of a compound by a French chemist, which produces oxygen when it touches water, without the application of heat. The outfit consists of two parts:

1. THE OXYGEN GENERATING APPARATUS.
2. THE SATURATOR, OR APPARATUS used to replace the hydrogen tank.

The oxygen apparatus consists, as shown in illustration, of a lower tank, which contains a cage into which the oxylith, or chemical is placed, a standpipe and upper vessel serve to hold the water supply and give the requisite pressure.

To prepare the apparatus for an exhibition, the lower vessel (which is placed upon the floor) is partly filled with water. The cage, which is not visible in illustration, receives a box of the chemical oxylith, is then placed in position, and the cover clamped. A quantity of water is poured in at the top.

and runs through the pipe to the bottom, raising the level of the water which it previously contained. As soon as this touches the oxyliith contained in the cage, pure oxygen is generated.

This is held between the water level and the top of the lower vessel, the column of water serving to give about two pounds pressure. As an entire compartment is only 15 inches in height, and 9 inches in diameter, and part of it is filled with water when gas is being used, it will be seen that at no time is there a large volume of gas present.

When the gas is being consumed, and the pressure lightened, the water column forces the water to a higher level, where it again comes in contact with oxyliith, generates more gas, whose volume lowers the water level and forces it back through the pipe into the upper vessel. This process continues until the entire volume of oxyliith has been exhausted. When the gas is not being used generation ceases.

The saturator is attached to the standpipe, and its contents saturated with sulphuric ether. The gas is led from the valve shown in the lower section of the pipe to the burner, giving pure oxygen. The other stopcock of the burner is connected by rubber tubing to the valve at the top of the saturator, which then feeds ether oxygen.

The oxygen produced by this means is over 99 per cent pure; that bought in tanks is usually 80 per cent pure.

The light is as bright as when obtained from gases taken from gas tanks under high pressure.

Although the maximum pressure of the gases contained in the American gas tanks is 22 1/2 pounds, the pressure actually required at the burner tip is less than one pound.

We can unreservedly recommend this outfit, because we consider it extremely practical. Its compactness when packed for carriage and light weight offer a great advantage over the heavier and bulkier types of gas making outfit.

The running expenses are about the same as the cost of gases bought in tanks, and economy is not claimed for it, at the present price of oxyliith. The element is imported from France, and the inventor upholds the price, to which duty and carriage must be added.

The dimensions and weight of the outfit are as follows: Height when set up, from floor to top of water supply vessel, 44 inches; height of oxygen compartment, 15 inches; diameter of oxygen compartment, 9 inches.

The dimensions of the carrying case which holds the complete outfit, including saturator, when packed for carriage are 10x10x24 inches. Total weight of outfit, packed in case, 35 pounds. When the burner, which we supply with this outfit, is used, one box of oxyliith will generate sufficient gas to last one and three quarter hours.

DYNAMIC HIGH POWER CALCIUM LIGHT BURNER.

This lime light burner has the highest efficiency of any calcium light burner on the market, and is particularly well adapted for the projection of moving pictures. At the best, calcium light is not as powerful as the electric arc, and any feature that adds to the candle power of a lime light burner is highly desirable.

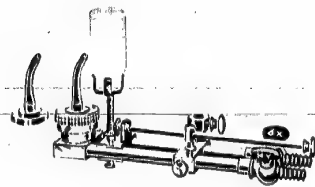
The mixing chamber of the "Dynamic" burner, that is to say the compartment in which the two gases meet and mix, is very much larger than in the ordinary type of burner and is so constructed

that the gases mix thoroughly before they reach the tip of the burner.

This burner is provided with two goose necks having different sizes of bore; one of these is $1/16$ inch and the other $1/12$ inch in diameter; they are interchangeable.

When exhibitors desire the highest degree of illumination, the large bore is used with a fine cylinder $1 1/4$ inches in diameter. The fine cup of the "Dynamic" burner is of the standard size to take $9/16$ inch or $7/8$ inch lines; the lines that are $1 1/4$ inches in diameter are reduced at the bottom to fit this fine cup.

When using the large bore the consumption of



gas runs from 8 to 10 feet per hour. In this case gases should be taken from the gas companies' cylinders which usually contain 50 feet of gas under high pressure. It is not advisable to use the large bore goose neck with the Oschell or other gas making outfits, as the heavy consumption of gas would be expensive and the pressure would be barely sufficient. When the burner is used with a gas making outfit a smaller bore tip should be placed in the burner.

Actual photometric tests demonstrate that the "Dynamic" burner produces 1100 C. P. when gases are taken from tanks at the rate of 8 to 10 feet per hour, using $1 1/4$ inch lines. Ordinary standard line light burners produce 600 C. P. with a consumption of 6 feet of gas per hour and the use of small lines.

FILM WINDER.

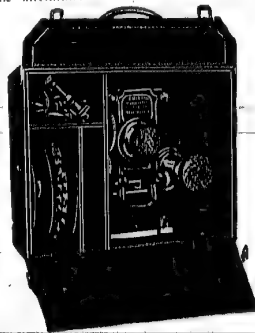
The film winder is an ingenious little apparatus, (shown in cut PK 20) is small, and compact and can be placed on any table or shelf that may be near the projecting machine, being provided with thumb screw for instantly adjusting it to a table. This is for use in winding up films not over 250 ft. in length. Exhibitors who have to make changes in their programmes weekly will find this a very useful addition to their outfit. To wind up film the end is placed in the groove of the winding shaft, with the emulsion side in, and by turning the crank of the winder a 100 foot film can be properly wound in less than ten seconds of time. There is an attachment on the winder for removing the film from the shaft after it has been wound, in perfect safety and in a perfect roll.

This attachment consists of a nickel plated disc about the diameter of a 150 foot film when rolled up. This disc slides from front to back of the shaft. After the film is wound, the exhibitor takes the disc from back to front, carrying the roll of film with it, thus freeing it from the shaft.



CARRYING CASE FOR UNIVERSAL KINETOSCOPE MECHANISM.

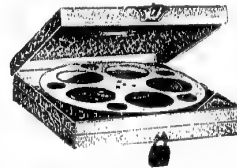
The case has compartments for the mechanism proper with supporting base and stereoscopic attachment, upper reel and support, take-up device, objectives and one extra reel. It is equipped with a carrying handle, hinged front door with top flap, and strong catches at top and sides of door. The dimensions are 16x12x8 1/2 inches. Such parts of the Universal machine as the large base board, lamp house, rheostats and lamp can be packed in a trunk or large dress suit case, but as the mechanism should receive every care,



Unit K 1 shows carrying case with mechanism in place. Especially when traveling, it is advisable to use the carrying case for this portion of the outfit and carry it as baggage. (See photo.)

REEL CASES.

These cases are made of metal, japanned, and are



Unit K 2. Shows Reel Case with Film in place, provided with carrying handle, lock and key. We furnish them in two sizes for the Universal reels. One holds one reel and the other two. Those furnished for exhibition reels hold one reel. We do not furnish cases to hold 2 Exhibition reels. (See photo.)

SCREENS

The best possible screen is a clean white plaster of paris wall. The next best is a screen made of stoutest cotton tacked tightly and squarely over a light wooden frame, and given two coats of Lalouine or gelatine and whiting. Wainscoting also makes a good screen.

We give herewith a list of screens which we furnish especially adapted for moving picture and reception work. The prices do not include stanchions or guy ropes, but simply the plain box frame.

Size of Screen	Net Price	Unit No.	Notes
10' x 12'	\$5.00	U. 11-14	Exhibition
11' x 13'	6.00	U. 11-15	Exhibition
12' x 14'	7.00	U. 11-16	Exhibition
13' x 15'	8.00	U. 11-17	Exhibition
14' x 16'	9.00	U. 11-18	Exhibition
15' x 17'	10.00	U. 11-19	Exhibition
16' x 18'	11.00	U. 11-20	Exhibition

FILMS AND COLORING.

To counteract the effect of cheap films, duplicates, worthless subjects and short length films that are being offered in the market, we are listing our *Genuine Edison Films* in two classes. Some of our subjects cost us large sums of money to obtain, while others are procured at a nominal cost. Therefore, the films of inexpensive subjects we shall list as Class B at the net price of 12 cents per foot. Those of the newer subjects and more expensive to secure will remain at 15 cents per foot.

Remember these are manufacturers' prices and the best materials are guaranteed. The quality of Class B films is precisely the same as Class A. The above prices are strictly net. There are no discounts.

The coloring of films adds wonderfully to their attractiveness. We have improved our coloring processes both in quality and rapidity, and are now prepared to finish in appropriate tints all films that are suitable for coloring. Special photographs are furnished on coloring.

Remember there are various kinds of coloring and color artists but we guarantee perfect work and perfect color combinations.

GENERAL INFORMATION.

All Edison Projecting Kinetoscopes complete are supplied with electric light attachments and are wired and colored. As to traveling exhibits, we shall advise the exhibitor when they are procured, and the date when they can be procured. It is not at all well known that we have a large number of traveling exhibits, and we are now procuring more.

burner in addition to the electric light attachments. If on the other hand an exhibitor intends travelling in small villages located at a distance from cities where gas can be procured and there is danger of the gases being delayed in transit and not arriving in time for entertainments, such exhibitors should purchase one of the gas making outfits listed in this catalogue. With Gas-Oxygen outfit No. 28 listed on page 34 a 25 foot cylinder and compressor is furnished. With these, oxygen gas can be generated and stand under pressure during leisure time, and used as desired. The saturator is filled with either 90 gasoline or methylated ether and takes the place of hydrogen. If our Oxylich light outfit is used, the oxygen gas must be generated as it is being used. This is the simplest and cheapest gas making outfit on the market and the light it gives is nearly equal to that given by the oxy hydrogen light.

Our films range in length from 25 to 2100 feet. It takes one minute to project a 50 foot strip of film on the screen at the proper speed to give the picture the appearance of natural life motion. From this information exhibitors may estimate the cost of an outfit necessary for the length and class of entertainment they intend giving. Most exhibitors use lantern slides containing the title of each film and project these before showing each subject. The slides can be left in the lantern for up to 15 seconds, and in this way the cost of film required for an entertainment is reduced considerably. Ordinary glass cutters and lantern slides can be used for the lantern. As to the prices of lantern slides, we have a list of prices on page 34. The cost of lantern slides is from 8 to 10 cents.

GASO-OXYGEN LIGHT.

The following chemicals will suffice for 2 hours continuous running: 2 lbs. chlorate of potash, 1/2 lb. black manganese, 1/2 lb. methyl ether and 1 lime.

PRICE LIST OF CHEMICALS (ADDITIONAL).

Chlorate of Potash, per lb.	80.25	K15118	Unfused
Black Manganese.....	.20	K15119	Unfused
Special Limes.....per doz	1.00	K15120	Unfused
Methylated Ether, in one			
lb. can.....per lb.	1.25	K15121	Unfused
Limes in sealed brass tubes,			
per dozen.....	1.25	K14488	Unfused
Extra large lines, 11 1/2" dia			
meter, per dozen.....	1.80	K14489	Unfused

OUTFIT No. 27.

For Generating Oxygen Gas (into bag only)
Price \$45.00

Catalogue No. K14500. Code Word Unfused.

(CHEMICALS NOT INCLUDED)

- 1 Russo iron retort and
- cleaner, 3 1/2" x 18".....\$7.00 K15100 Unfused
- 1 Retort stand.....3.00 K15101 Unfused
- 1 Burner gas or spirit.....2.00 K15102 Unfused
- 16 inches lined tubing
- from retort to purifier.....25 K15103 Unfused

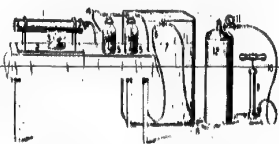


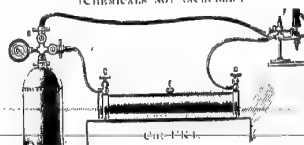
FIG. 27. Shows complete outfit.

* For the rubber stop
perforated metal tubes
and 1/2" diameter tubing
purity for 1/2".....1.00 K14504 Unfused

1-55 Gallon gas bag, stop-
cocks and regulator.....20.00 K15104 Unfused
No. 1/2" dia. rubber tubing.....1.00 K15107 Unfused
Net. Wt. of complete outfit, 23 lbs. (gross wt. packed
in special box (no extra charge), 45 lbs.

PRICE CAT. NO. CODE WORD

Gaso-oxygen Saturator &
Burner.....\$30.00 K14510 Unfused
outfit No. 27 complete with
Saturator and Burner.....75.00 K14511 Unfused
(CHEMICALS NOT INCLUDED)



Showing connections between Gas Tank, Saturator
and Burner of Gas-oxygen outfit No. 28.

OUTFIT No. 28

For Generating and Compressing Oxygen Gas
in Cylinders.
Price \$94.00

Catalogue No. K14512. Code Word Unfused

The first six items are the

same in outfit No. 27, as

in outfit No. 27.

1-55 Gallon gas bag and

double stop-cock.....20.00 K15104 Unfused

5 feet 10" dia. rubber

tubing from gas bag to

pump.....1.20 K15111 Unfused

1 compressor.....15.00 K15112 Unfused

1 rubber and comp-

ressor compressed

air.....2.00 K14513 Unfused

1 rubber and comp-

ressor compressed

air.....12.00 K14514 Unfused

1 Fast-flow foot cylinder

and key.....10.00 K14515 Unfused

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Net wt. of complete outfit, 82 lbs. Gross wt. packed in special box (no extra charge), 86 lbs.

Gaseo-Oxygen Saturator & Burner and 12 ft. tubing, 30.00 K14510 Unpacked
Oxylith No. 28 can plate with Saturator and Burner, 324.50 K14513 Unpacking

OXYLITH GAS-MAKING OUTFIT.
PRICE, \$39.50.

Cat. No. K14466. Code Word, *Vanadium*.

Includes saturator, wrench, tongs, funnel, and complete instructions without chemicals.
Oxylith Oxygen compound (24 cokes in sealed can) \$1.25 K14467 *Vanadium*
(It is recommended because it can be obtained in any well-stocked drug store. 100% gasoline can be used but is obtained with difficulty.)

DYNAMIC HIGH POWER CALCIUM LIGHT BURNER.
PRICE, \$15.00.

Cat. No. K14487. Code Word, *Vanadium*.

Includes two interchangeable goose necks, 1/4 inch and 1/2 inch respectively.

PARTS AND SUPPLIES FOR EXHIBITION AND UNIVERSAL MODEL PROJECTING KINETOSCOPES.

(See following pages for parts and supplies under objective lens and microscope only.)

Universal Spot (1) Adjust-
able Objective Lens, 20.00 K15057 *Vanadium*
Objective Lens No. 1, 7.00 K11100 *Vanadium*
Objective Lens No. 2, 10.00 K14101 *Vanadium*
Objective Lens No. 3, 10.00 K14102 *Vanadium*
Stereopticon Objective
Lens No. 1, 7.00 K14103 *Vanadium*
Stereopticon Objective
Lens No. 2A, 10.00 K14104 *Vanadium*
Stereopticon Objective
Lens No. 3A, 18.00 K14405 *Vanadium*

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Stereopticon Objective

Lens No. 1AA, 14.50 K14409 *Vanadium*
(See page 17 for combinations of these lenses.)
Lamp House body, 2.50 K14402 *Vanadium*
Arc Lamp with Burner, 10.00 K15000 *Vanadium*
Arc Lamp Base, 2.50 K14472 *Vanadium*
Carbon Holders for Arc
Lamp (2) each, 3.50 K14460 *Vanadium*
Carbon Holder Arms, upper, 4.50 K14407 *Vanadium*
Carbon Holder Arms, lower, 4.00 K14408 *Vanadium*
Carbon Clamping Screws (2), 1.50 K14408 *Vanadium*
Carbon Holder Holding
post (thumb screws (2), 1.50 K14408 *Vanadium*
Carbon Holder Clamp
screw (insulating bush-
ings (2) each, 3.50 K14470 *Vanadium*
Carbon Holder Insulat-
ing bushing washers, 3.50 K14471 *Vanadium*
Carbon Holder Insulat-
ing bushing washers (2) each, 3.50 K14472 *Vanadium*
Carbon Holder Clamp
screw (insulating bush-
ings (2) each, 3.50 K14473 *Vanadium*
Carbon Holder Insulat-
ing bushing washers (2) each, 3.50 K14474 *Vanadium*
Arc Lamp Gear Shaft
Clamp Nut, 2.50 K14409 *Vanadium*
Arc Lamp Gear Shaft
Handle, 2.50 K14470 *Vanadium*
Arc Lamp Gear Shaft
Handle Coupling, 1.50 K14471 *Vanadium*
Resostat, 10.00 K15020 *Vanadium*
Film Winder, 1.50 K15011 *Vanadium*
Blank Film (1) 16 in. x 10 in. 7.50 K15012 *Vanadium*
Film Cement, per bottle, 7.50 K15013 *Vanadium*
Impressed Carbons, for
Lamp (extra quality), 1.00 K15014 *Vanadium*
Condensing Lens (with
plate front and rear
glass and shell), 6.00 K15005 *Vanadium*
Condensing Lens (front
glass only), 2.00 K14405 *Vanadium*

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Condensing Lens (rear glass only).....	2.00	K15009	Unfigured
Cone and Bracket.....	2.00	K14458	Unstriik
Double Slide Carrier.....	.90	K14473	Unstriek
Connecting Cord long (2) each.....	.40	K15055	Unstriek
Connecting Cord short.....	.20	K15056	Unstriek
Cone Bracket Clamp Screw.....	.15	K14450	Unstriek
Cone Washer.....	.05	K14460	Unstriek

**PARTS AND SUPPLIES FOR EDISON
EXHIBITION PROJECTING
KINETOSCOPE ONLY.**

Take-up Device.....	8.15	K15001	Unstriek
Stereopticon Attachment.....	12.00	K15005	Unstriek
Carrying Case for complete machine.....	10.00	K15021	Unstriek
Reel, 10 inch.....	1.00	K15053	Unstriek
Reel Shaft and Pinion.....	.50	K15001	Unstriek
Reel Hanger with winding gear and crank.....	2.00	K15054	Unstriek
Upper Sprockets.....	3.00	K15034	Unstriek
Upper Sprocket Shafts with Pinions.....	10	K15035	Unstriek
Upper Rubber Tension Roller.....	.50	K15036	Unstriek
Upper Rubber Tension Roller Shaft.....	10	K15002	Unstriek
Upper Rubber Roller Tension Spring.....	10	K14475	Unstriek
Screws (2).....	.05	K14476	Unstriek
Upper Rubber Tension Roller Bracket.....	.25	K15003	Unstriek
Body Sides, right.....	1.25	K15051	Unstriek
Body Sides, left.....	1.25	K15052	Unstriek
Frame Side, right.....	2.00	K15001	Unstriek
Frame Side, left.....	2.00	K15005	Unstriek
Frame Side, cup.....	.75	K15000	Unstriek
Sprocket Set Screws each.....	.05	K15007	Unstriek
Picture Gange Bracket.....	.50	K15008	Unstriek
Clamps.....	1.00	K15020	Unstriek

Large Driving Gear.....	1.00	K15089	Unfigured
First Intermediate Pinion with Shafts.....	.30	K15031	Unstriek
Second Intermediate Pinions.....	.20	K15032	Unstriek
Large Intermediate Gears.....	.50	K15033	Unstriek
Cam Shaft with Cam and Large Bevel Gear Assembly.....	4.00	K15037	Unstriek
Cam.....	1.75	K15038	Unstriek
Cam Shaft.....	.80	K15000	Unstriek
Pinion Bushings (2) each.....	.25	K15041	Unstriek
Large Bevel Gear.....	1.25	K15030	Unstriek
Small Bevel Gear with Shaft.....	.75	K15042	Unstriek
Revolving Shutter.....	.00	K15043	Unstriek
Intermittent Sprocket and Star Wheel Assembly on Shaft.....	6.00	K15044	Unstriek
Intermittent Sprocket.....	3.00	K15045	Unstriek
Star Wheels.....	2.00	K15046	Unstriek
Eccentric Bushings (2) each.....	.25	K15047	Unstriek
Pin Gate complete with Intermittent Sprocket Tension Roller, Tension Roller Springs, Guide Roller, Guide, Flanges and Shaft Assembled.....	3.15	K15070	Unstriek
Pin Tension Springs (2) each.....	.25	K15071	Unstriek
Pin Tension Spring Screws (2) each.....	.05	K15072	Unstriek
Guide Roller for Film Gate.....	.20	K15073	Unstriek
Guide Roller Flanges (2) each.....	.25	K15074	Unstriek
Guide Roller Shaft.....	10	K15075	Unstriek
Intermittent Sprocket Rubber Tension Roller with Shaft.....	.00	K15019	Unstriek
Intermittent Sprocket Rubber Roller Tension Springs (2) each.....	10	K15076	Unstriek
Take-up Frame (Long Casting).....	2.50	K15077	Unstriek

Take up Driving Gear Bracket.....	.75	K14478	Valdubas
Take up Frame Slide (left).....	.75	K14477	Valdubas
Take up Driving Gear.....	.50	K15078	Valdubas
Take up Sprocket.....	3.00	K15079	Valdubas
Take up Sprocket Shaft with Pulley.....	.40	K15080	Valdubas
Take up Rubber Tension Roller.....	.50	K15081	Valdubas
Take up Rubber Tension Roller Bracket.....	.35	K15082	Valdubas
Take up Rubber Tension Roller Shaft.....	.10	K15083	Valdubas
Lamp House Slide (front).....	.80	K15084	Valdubas
Lamp House Slide (rear).....	.30	K15085	Valdubas
Lamp House Bracket.....	2.00	K15086	Valdubas
Lamp House Slide Rails (2) each.....	.50	K15087	Valdubas
Lamp House Baseboard.....	.50	K15088	Valdubas
Large Baseboard with Hinges only.....	1.00	K15089	Valdubas
Pin, Idle Pulley and Bracket to attach to Baseboard complete.....	1.25	K15090	Valdubas
Single Reel Case (net).....	1.50	K15091	Valdubas
Mechanism Cabinet.....	3.50	K15092	Valdubas

PARTS AND SUPPLIES FOR EDISON UNIVERSAL PROJECTING KINETOSCOPE ONLY.

Stereopticon Attachment only, includes one No. 1A Objective Lens, Support Ring, Ring Casting for ball size Objective and Adapter for quarter size Objective.....	\$10.00	K11160	Valdubas
Clamp screws for stereopticon support and (2).....	1.00	K11161	Valdubas
Reels, Sheet.....	.50	K11162	Valdubas
Reel Shaft and pulley.....	.50	K11163	Valdubas
Reel Hammer, including rollers, winding reel and gear.....	1.00	K11164	Valdubas
Reel Hammer, assembled with reel shaft and shaft pulley and clutch.....	1.00	K11165	Valdubas

Reel Driving Belts.....	.50	K14421	Valdubas
Mechanism, Base, complete, with Horizontal Slide Roller.....	2.00	K14422	Valdubas
Mechanism Slide.....	1.25	K14423	Valdubas
Mechanism Support Cast Iron.....	2.00	K14424	Valdubas
Mechanism Slide Rails (2) each.....	.25	K14425	Valdubas
Upper Sprocket.....	3.00	K14426	Valdubas
Upper Sprocket Shaft.....	.20	K14427	Valdubas
Upper Sprocket Shaft Gear and Pulley.....	1.25	K14428	Valdubas
Upper Rubber Tension Roller and Bracket Assembly.....	.35	K14429	Valdubas
Upper Rubber Tension Roller.....	.50	K14430	Valdubas
Upper Rubber Tension Roller Shaft.....	.10	K14431	Valdubas
Upper Rubber Tension Roller Bracket.....	.35	K14432	Valdubas
Upper Rubber Roller Tension Spring.....	.10	K14433	Valdubas
Upper Rubber Roller Tension Spring Screws.....	.05	K14434	Valdubas
Sprocket Set Screws, each.....	.05	K14435	Valdubas
Slide Hammer.....	.50	K14436	Valdubas
Slide Hammer Bracket.....	.30	K14437	Valdubas
Upper Film Guard.....	.35	K14438	Valdubas
Crank.....	1.00	K11133	Valdubas
Driving Gear.....	1.00	K11134	Valdubas
Lower Intermediate Pinion.....	.20	K11135	Valdubas
Upper Intermediate Pinion.....	.20	K11136	Valdubas
Cam Shaft, assembled with Cam and Large Reel Gear.....	1.00	K11137	Valdubas
Cam.....	1.75	K11138	Valdubas
Cam Shaft.....	.50	K11139	Valdubas
Cam Shaft Pinion.....	.50	K11140	Valdubas
Cam Shaft Bushing 1 in.....	.25	K11141	Valdubas
Cam Shaft Bushing 1 1/2 in.....	.25	K11142	Valdubas
Lower Reel Gear.....	1.75	K11143	Valdubas
Small Reel Gear.....	.75	K11144	Valdubas
Reel Gear Shorter.....	.50	K11145	Valdubas
Intermediate Sprocket with shaft and pulley.....	1.00	K11146	Valdubas
Intermediate Sprocket.....	1.00	K11147	Valdubas

Star Wheel.....	2.00	K14475	Valisopore
Eccentric Bushings, each.....	.25	K14476	Valvola
Film Gate (only).....	.75	K14409	Vaudann
Film Tension Springs (2) each.....	.25	K14412	Veslessly
Film Tension Spring Screws (2) each.....	.05	K14413	Vesmaria
Upper Guide Roller.....	.20	K14414	Vesques
Upper Guide Roller Planges (2) each.....	.25	K14415	Vesvle
Upper Guide Roller Shaft.....	.10	K14416	Vesusa
Lower Guide Planges with Shaft.....	.40	K14417	Vesurance
Lower Guide Plange Shaft Tension Springs, each.....	.10	K14418	Vetherdon
Lower Guide Plange Shaft Tension Spring Screws (2) each.....	.05	K14419	Vethered
Take up Attachment Bracket assembled with shaft and pulley.....	1.00	K14422	Vesicorum
Lower Film Guards.....	.15	K14423	Vesimoda
Take up Driving Gears.....	.50	K14424	Vesnage
Take up Sprocket Gear.....	3.00	K14425	Vesne
Take up Sprocket Shaft.....	.20	K14452	Vaholarum
Take up Sprocket Shaft Gear and Pulley Assembly.....	1.25	K14453	Vatolai
Lower Rubber Tension Roller and Bracket Assembly.....	1.10	K14455	Vatwind
Lower Rubber Tension Roller.....	.50	K14456	Vatbraced
Lower Rubber Tension Roller Shaft.....	.10	K14484	Vandyking
Lower Rubber Tension Roller Bracket.....	.35	K14457	Vamoure
Lower Rubber Roller Tension Spring.....	.10	K14485	Vandus
Lower Rubber Roller Tension Spring Screws (2).....	.05	K14486	Vanesto
Cone Bracket Base.....	.30	K14494	Vampin
Lamp House Baseboard.....	.50	K14463	Vampdus
Lamp House Board with Chair.....	1.50	K14464	Vampdus
Large Baseboard Chair Casting.....	.20	K14465	Vanabautin
Carriage Case for Lat. and Long. Motion.....	1.00	K14421	Vasocromo
Single Reel Case (no 1).....	1.50	K14422	Vasodiso
Double Reel Case (no 1).....	2.00	K14423	Vasotto

